



SUSANA MARTINEZ  
Governor  
JOHN A. SANCHEZ  
Lieutenant Governor

## NEW MEXICO ENVIRONMENT DEPARTMENT

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RYAN FLYNN  
Cabinet Secretary  
BUTCH TONGATE  
Deputy Secretary

### **Certified Mail – Return Receipt Requested**

February 26, 2015

Mr. Allen Norris, Plant Manager  
Dicaperl Minerals Corp.  
P.O. Box 1436  
Socorro, NM 87801

Re: Socorro Perlite Quarry and Plant, Unpermitted MSGP, SIC 1499 & 3295; NPDES Compliance  
Evaluation Inspection; NMU001883; February 17, 2015

Dear Mr. Norris:

Enclosed please find a copy of the report and check list for the referenced inspection that the New Mexico Environment Department (NMED) conducted at your facility on behalf of the U.S. Environmental Protection Agency (USEPA). This inspection report will be sent to the USEPA in Dallas for their review. These inspections are used by USEPA to determine compliance with the National Pollutant Discharge Elimination System (NPDES) permitting program in accordance with requirements of the federal Clean Water Act.

Introduction, treatment scheme, and problems noted during this inspection are discussed in the "Further Explanations" section of the inspection report.

You are encouraged to review the inspection report, required to correct any problems noted during the inspection, and advised to modify your operational and/or administrative procedures, as appropriate. If you have comments on or concerns with the basis for the findings in the NMED inspection report, please contact us (see the address below) in writing within 30 days from the date of this letter. Further, you are encouraged to notify in writing both the USEPA and NMED regarding modifications and compliance schedules at the addresses below:

Racquel Douglas  
US Environmental Protection Agency, Region VI  
Enforcement Branch (6EN-WM)  
Fountain Place  
1445 Ross Avenue  
Dallas, Texas 75202-2733

Bruce Yurdin  
New Mexico Environment Department  
Surface Water Quality Bureau  
Point Source Regulation Section  
P.O. Box 5469  
Santa Fe, New Mexico 87502

If you have any questions about this inspection report, please contact Erin Trujillo at 505-827-0418 or at [erin.trujillo@state.nm.us](mailto:erin.trujillo@state.nm.us).

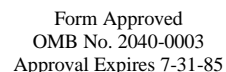
**Dicaperl Minerals Corp.**  
**Socorro Perlite Quarry and Plant**  
**February 26, 2015**  
**Page 2 of 2**

Sincerely,

*/s/Bruce J. Yurdin*

Bruce J. Yurdin  
Program Manager  
Point Source Regulation Section  
Surface Water Quality Bureau

cc: Rashida Bowlin, USEPA (6EN-AS) by e-mail  
Carol Peters-Wagnon, USEPA (6EN-WM) by e-mail  
Racquel Douglas, USEPA (6EN-WM) by e-mail  
Gladys Gooden-Jackson, USEPA (6EN-WC) e-mail  
Darlene Whittten-Hill (USEPA (6EN) e-mail  
Bill Chavez, NMED District I by e-mail  
David O'Hori, State of New Mexico, EMNRD, Mining & Minerals Division by e-mail



## Section A: National Data System Coding

[illegible]

Name and Location of Facility Inspected ( <i>For industrial users discharging to POTW, also include POTW name and NPDES permit number</i> ) Dicaperl Minerals Corp., Socorro Perlite Quarry and Plant, 1900 Grefco Road, Socorro, NM 87801. Socorro County		Entry Time /Date ~1020 hours /02/17/2015	Permit Effective Date September 29, 2008
		Exit Time/Date ~1520 hours / 02/17/2015	Permit Expiration Date September 29, 2013
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) see below			Other Facility Data <u><b>Entrance</b></u> Latitude: 34.027080° Longitude: -106.926130°
Name, Address of Responsible Official/Title/Phone and Fax Number Allen Norris, Plant Manager, Dicaperl Minerals Corporation, P.O. Box 87801, Socorro, NM 87801 / 575-835-2892 and fax 505-835-2894		Contacted Yes <input checked="checked" type="checkbox"/> No <input type="checkbox"/>	SIC 1499 & 3295 MSGP Sector J & E

U	Permit	N	Flow Measurement	N	Operations & Maintenance	N	CSO/SSO
U	Records/Reports	N	Self-Monitoring Program	N	Sludge Handling/Disposal	N	Pollution Prevention
M	Facility Site Review	N	Compliance Schedules	N	Pretreatment	N	Multimedia
N	Effluent/Receiving Waters	N	Laboratory	U	Storm Water	N	Other:

Dicaperl Minerals Corp., a corporation in the State of New Mexico (filing date November 9, 2000), did not obtain coverage for stormwater discharges from the Socorro Perlite Quarry and Plant, a mine and milling establishment with primary and co-located industrial activities eligible for coverage under the USEPA NPDES Industrial Stormwater 2008 Multi-Sector General Permit (MSGP) before the permit expiration date of September 29, 2013. Dicaperl Minerals Corp. did not provide documentation of submission of a Notice of Intent (NOI) by the deadline “No later than January 5, 2009.” See attached report and further explanations.

<b>Name(s) and Signature(s) of Inspector(s)</b> <b>Erin S. Trujillo</b> /s/Erin S. Trujillo	<b>Agency/Office/Telephone/Fax</b> <b>NMED/SWQB/505-827-0418</b>	<b>Date</b> <b>02/26/2015</b>
<b>Signature of Management QA Reviewer</b> <b>Sarah Holcomb</b> /s/Sarah Holcomb	<b>Agency/Office/Phone and Fax Numbers</b> <b>NMED/SWQB/505-827-2798</b>	<b>Date</b> <b>02/26/2015</b>

**Dicaperl Minerals Corp. - Socorro Perlite Quarry and Plant**  
**Compliance Evaluation Inspection**  
**NPDES Permit No. NMU001883**  
**February 17, 2015**

**Further Explanations**

**Introduction**

On February 17, 2015, a Compliance Evaluation Inspection (CEI) was conducted by Erin S. Trujillo, accompanied by Daniel Valenta, both of the State of New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) at the Dicaperl Minerals Corp., Socorro Perlite Quarry and Plant located at 1900 Grefco Road, Socorro, New Mexico in San Juan County (See Figure 1 General Location Map and Figure 2 Socorro Perlite Quarry and Plant, and Rail Line Spur). The purpose of this inspection was to document the operator's status regarding the National Pollutant Discharge Elimination System (NPDES) permit requirements for stormwater discharges associated with industrial activity under 40 Code of Federal Regulations (CFR) 122.26 and U.S. Environmental Protection Agency (USEPA) industrial stormwater Multi-Sector General Permit (MSGP).

Stormwater discharges north-northeast of the mine and mill would be to unnamed tributaries, and south-southeast of the mine would be to unnamed tributaries then Socorro Canyon, and then to Arroyo de la Mantanza in the Rio Grande Basin. Flow from the tributaries continue to canal/ditches, thence to Rio Grande in Segment 20.6.4.105 Standards for Interstate and Intrastate Surface Waters, New Mexico Administrative Code (NMAC). The main stem of the Rio Grande from the headwaters of Elephant Butte reservoir upstream to Alameda Bridge (Corrales Bridge), excluding waters on Isleta Pueblo, has designated uses of irrigation, marginal warmwater aquatic life, livestock watering, public water supply, wildlife habitat and primary contact. Rio Grande Assessment Unit NM-2105\_10 (San Marcial at USGS gage to Rio Puerco) is listed as not supporting primary contact and marginal warmwater aquatic life uses. A total maximum daily load for E.coli bacteria and aluminum was written in 2010, which is available at NMED SWQB web site at [http://www.nmenv.state.nm.us/swqb/Rio\\_Grande/Middle/index.html](http://www.nmenv.state.nm.us/swqb/Rio_Grande/Middle/index.html).

NMED performs a certain number of CEIs for the USEPA each year. The purpose of this inspection is to provide USEPA with information to evaluate the permittee's compliance with NPDES and the MSGP permit. This report is based on review of USEPA's on-line notice of intent (eNOI) database, files maintained by the operator and NMED, on-site observation by NMED personnel, and verbal information provided by the operator's representative.

Upon arrival at approximately 1020 hours on the day of the inspection, Ms. Trujillo made introductions, presented credentials to Mr. Allen Norris, Plant Manager, Dicaperl Minerals Corp., Socorro Perlite Quarry and Plant and discussed the purpose of the inspection. The inspectors and Mr. Norris toured the facility. Following the tour, an exit interview was conducted on site with Mr. Norris. The inspectors left the facility at approximately 1520 hours on the day of this inspection.

**Brief Site History**

Socorro Perlite Quarry and Plant mines and produces crushed, dried and sized (screened) perlite ore. Dicaperl Minerals Corp. publication "*Perlite the Story of the Socorro Plant and Quarry*" states "*Production began in 1949...In 1961 operation at Socorro was suspended...In 1975 the Socorro perlite plant went back into production with a brand new plant.*" The Socorro Perlite Quarry and Plant was previously owned by Grefco Inc., a revoked corporation in the State of New Mexico, with a date of incorporation of May 6, 1966 and Certificate of Revocation (non-filer) on January 11, 2001. Dicaperl Minerals Corp. is a corporation in the State of New Mexico with a filing date of November 9, 2000 according to New Mexico Secretary of State on-line query available at:

[https://portal.sos.state.nm.us/corps/\(S\(kg2cq2odenkh44licu3okmpb\)\)/Corpllookup/Lookdn.aspx](https://portal.sos.state.nm.us/corps/(S(kg2cq2odenkh44licu3okmpb))/Corpllookup/Lookdn.aspx).

## **Federal Clean Water Act (CWA) and Industrial Stormwater Permit Requirements**

Section 301 (a) of the Federal Water Pollution Control Act states that *“Except as in compliance with this section and sections 302, 306, 307, 318, 402 and 404 of this Act, the discharge of any pollutant by any person shall be unlawful.”* Federal regulations in 40 CFR Part 122.21(a) Duty to apply (1) states: *“Any person who discharges or proposes to discharge pollutants...must submit a complete application to the Director in accordance with this section and part 124 of this chapter.”*

Eleven (11) categories of stormwater discharges associated with industrial activity are identified in 40 CFR 122.26(b)(14)(i)-(xi) that require coverage under an NPDES permit. Industrial stormwater has been regulated since the promulgation of USEPA’s 1990 stormwater regulations, which established NPDES permit requirements for “stormwater discharges associated with industrial activity.” Industrial stormwater category (iii) in 40 CFR 122.26(b)(14), includes active or inactive mining operations with Standard Industrial Classification (SIC) group 14 Mineral Industry (non-metallic minerals except fuels). SIC 1499 (miscellaneous nonmetallic minerals, except fuels) includes establishments primarily engaged in mining, quarrying, milling, or otherwise preparing nonmetallic minerals, except fuels, including perlite. Category (ii) includes facilities with SIC 3295 (minerals and earths, ground or otherwise treated), establishments operating without a mine or quarry and primarily engaged in crushing, grinding, pulverizing, or otherwise preparing miscellaneous nonmetallic minerals.

USEPA’s first MSGP for stormwater discharges associated with industrial activity was published on September 29, 1995 (Federal Register Volume 60, No. 189 on Friday 29, 1995, page 50953), and has since been reissued in 2000 and 2008. USEPA 2008 MSGP was re-issued effective September 29, 2008 (Federal Register/Vol. 73, No. 189/Monday, September 29, 2008 pg. 56572) and replaced the 2000 MSGP which expired on October 30, 2005. Appendix D (Facilities and Activities Covered) of the 2008 MSGP lists:

<u>Sector</u>	<u>SIC</u>	<u>Activity Represented</u>
J2	1499	Miscellaneous Nonmetallic Minerals, Except Fuels
E3	3295	Miscellaneous Nonmetallic Mineral Products

To obtain permit coverage under the MSGP, an operator must complete, or update, a Stormwater Pollution Prevention Plan (SWPPP) that documents eligibility for permit coverage, and submit a notice of intent (NOI) to the USEPA. Among other things, requirements in the MSGP include site-specific best management practices (BMPs), maintenance plans, inspections, employee training and annual reporting. BMPs include good housekeeping practices, minimizing exposure, erosion and sediment control, and management of runoff. The MSGP also requires visual, and, for some sectors, analytical monitoring to determine the effectiveness of implemented BMPs.

The Federal Register notice announcing the proposed reissuance of the MSGP was published on September 27, 2013. Facilities that obtained coverage under the 2008 MSGP prior to its expiration were automatically granted an administrative continuance of permit coverage, and the administrative continuance will remain in effect until a new permit is issued. Facilities already covered under the 2008 MSGP are not required to submit a new NOI for permit coverage until the new MSGP is issued, and these facilities must continue to comply with all of the requirements in the 2008 permit, including requirements for monitoring and reporting.

Until the new MSGP is issued, "new" facilities (i.e., those facilities not covered under the 2008 MSGP) that begin discharging industrial stormwater after September 29, 2013 are unable to file a NOI for general permit coverage. USEPA’s No Action Assurance (NAAs) Memorandum dated March 27, 2014 covered newly-discharging facilities, provided that these facilities: (1) meet the 2008 MSGP eligibility criteria; (2) notify the appropriate USEPA permitting authority of their operator status and their intention to operate in accordance with the 2008 MSGP; and (3) comply with all requirements of the 2008 MSGP including, but

not limited to, SWPPP development and implementation and proper installation and maintenance of best management practices.

More information on USEPA MSGP and status of the proposed permit is available at:

[http://water.epa.gov/polwaste/npdes/stormwater/upload/msgp2008\\_finalpermit.pdf](http://water.epa.gov/polwaste/npdes/stormwater/upload/msgp2008_finalpermit.pdf)

It is anticipated that the next MSGP permit will also have NOI submittal deadlines. A sign up to receive the Federal Register Notices announcing the availability of the Final MSGP Permit is available at:

<http://www.gpo.gov/fdsys/browse/collection.action?collectionCode=FR>

### **Associated Pollutants at Mineral Mining and Processing Facilities**

USEPA's 1995 MSGP lists pollutants associated with the various regulated sectors. For Sector J and Sector E, the following USEPA Industrial Stormwater Fact Sheets provide a brief summary of the NPDES industrial stormwater permitting program, the types of facilities included in that sector, a summary of typical pollutants associated with each sector, and types of stormwater control measures (or Best Management Practices) used to minimize the discharge of those pollutants:

[http://water.epa.gov/polwaste/npdes/stormwater/upload/sector\\_j\\_mineralmining.pdf](http://water.epa.gov/polwaste/npdes/stormwater/upload/sector_j_mineralmining.pdf)

[http://water.epa.gov/polwaste/npdes/stormwater/upload/sector\\_e\\_glass.pdf](http://water.epa.gov/polwaste/npdes/stormwater/upload/sector_e_glass.pdf)

Examples of pollutant listed in the USEPA Industrial Stormwater Fact Sheet J associated with mineral processing activities (e.g., rock sorting, rock crushing, raw material storage, waste rock storage, raw material loading, processing materials unloading, raw or waste material transportation) include dust and fines, total suspended solids (TSS), total dissolved solids (TDS), turbidity, pH, diesel/gas fuel, and oil. Pollutants associated with mining reclamation activities (e.g., site preparation for stabilization and fertilizers) include dust, TSS, TDS, turbidity, nitrogen, and phosphorus. Pollutants listed in the USEPA Industrial Stormwater Fact Sheet E associated with material handling of perlite ore include TSS, pH and Chemical Oxygen Demand (COD). Requirements that apply to the specific subsectors are in Part 8 of the 2008 MSGP include the following benchmark monitoring:

Subsector J2 Nonmetallic Minerals (except fuels) Mining (SIC 1499)

Total Suspended Solids (TSS) 100 mg/L

### **On-Site Industrial Activities**

An annotated aerial photography site map at the facility (originally prepared in 1966 and referring to NMR00A555 possibly for the 1995 MSGP) showed topography, drainages, property boundaries, roads, quarry, diesel and oil storage, waste dumps, topsoil dump, sediment basins and six identified outfalls. Dicaperl Minerals Corp. submitted a NOI to obtain coverage under the 2000 MSGP (Tracking Number NMR05B054) on February 16, 2001. The status of this NOI is indicated as "expired" on USEPA's NOI on-line query available at <http://cfpub.epa.gov/npdes/stormwater/noi/noisearch.cfm>. A requested SWPPP completed for the 2000 MSGP was not provided during this inspection.

On the day of this inspection (see photos), the site had processing and raw materials storage industrial activities, including outside storage and stockpiling of materials (e.g., overburden, raw material, intermediate products, finished products, byproducts and/or waste products) and material handling that would come into contact with stormwater. The site also includes an access road and rail line spur maintained by the operator that is used to transport processed ore. Secondary containment existed at diesel and oil storage tanks. Observed dust and sediment control measures included watering of roads and stockpile beneath ore conveyer belt, rock lined channels, and sediment control basins. Mr. Norris stated that he had not seen documents with the design size of the sediment basins.

## **Findings**

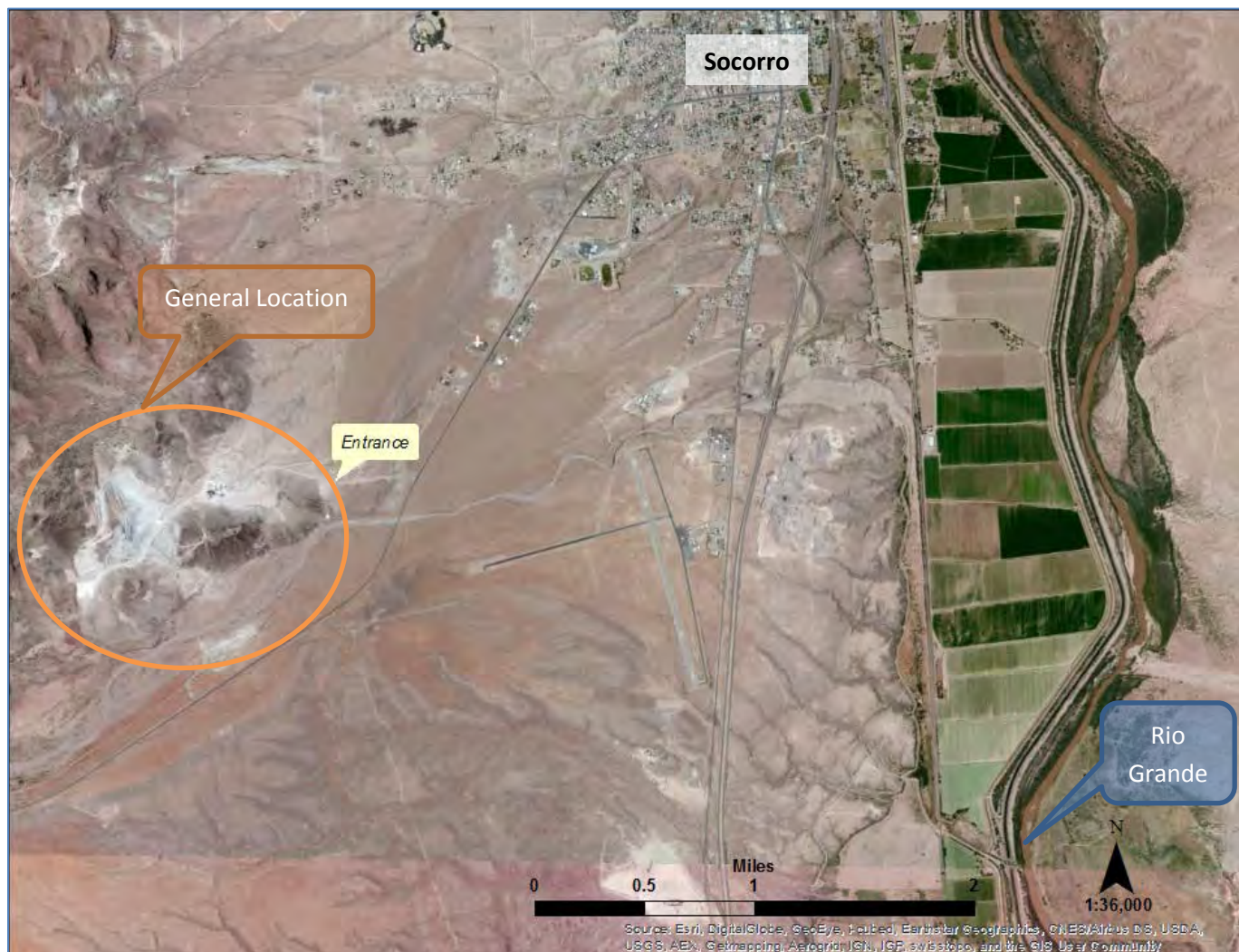
- Dicaperl Minerals Corp., did not obtain coverage for stormwater discharges from the Socorro Perlite Quarry and Plant, a mine and milling establishment in operation prior to October 30, 2005 and authorized for coverage under MSGP 2000, with primary and co-located industrial, in this case Sector J and E activities, eligible under the USEPA NPDES Industrial Stormwater 2008 MSGP before the 2008 MSGP expiration date of September 29, 2013.
- Dicaperl Minerals Corp. did not provide requested documentation (e.g., certified mail/return receipt tracking) of submission of an NOI by the deadline “No later than January 5, 2009” on the day of this inspection.

Notes: A copy of a completed NOI for the 2008 MSGP certified/signed/dated November 25, 2008; threatened and endangered species documentation dated November 13, 2008; and undated and unsigned SWPPP with a non-stormwater discharge evaluation date of November 14, 2008 was available on site (see attached). Mr. Norris described that a NOI was mailed to USEPA to obtain permit coverage under the 2008 MSGP, but that USEPA did not reply. Mr. Norris explained that conditions in the 2008 MSGP and updated SWPPP were not implemented because the facility had not been contacted by USEPA. Mr. Norris described that inspections (approximately 2 times a year) and maintenance (e.g., removal of vegetation and removal of accumulated sediments from sediment control basins) were conducted at the site. Copies of example inspection records maintained at the facility are attached.

- Drainage from a portion of the mill area, including areas used for mining equipment parking and equipment storage, and access road have the potential of leaving the property to unnamed drainageways (tributaries) in the north-northeast portion of the site. Drainage may also flow off the maintained area of the rail line spur. Also, the emergency access road crosses Socorro Canyon. Potential additional outfalls at the north-northeast portion of the site and at the south portion of the site where the emergency access road crosses Socorro Canyon were not identified on the facility’s site map.

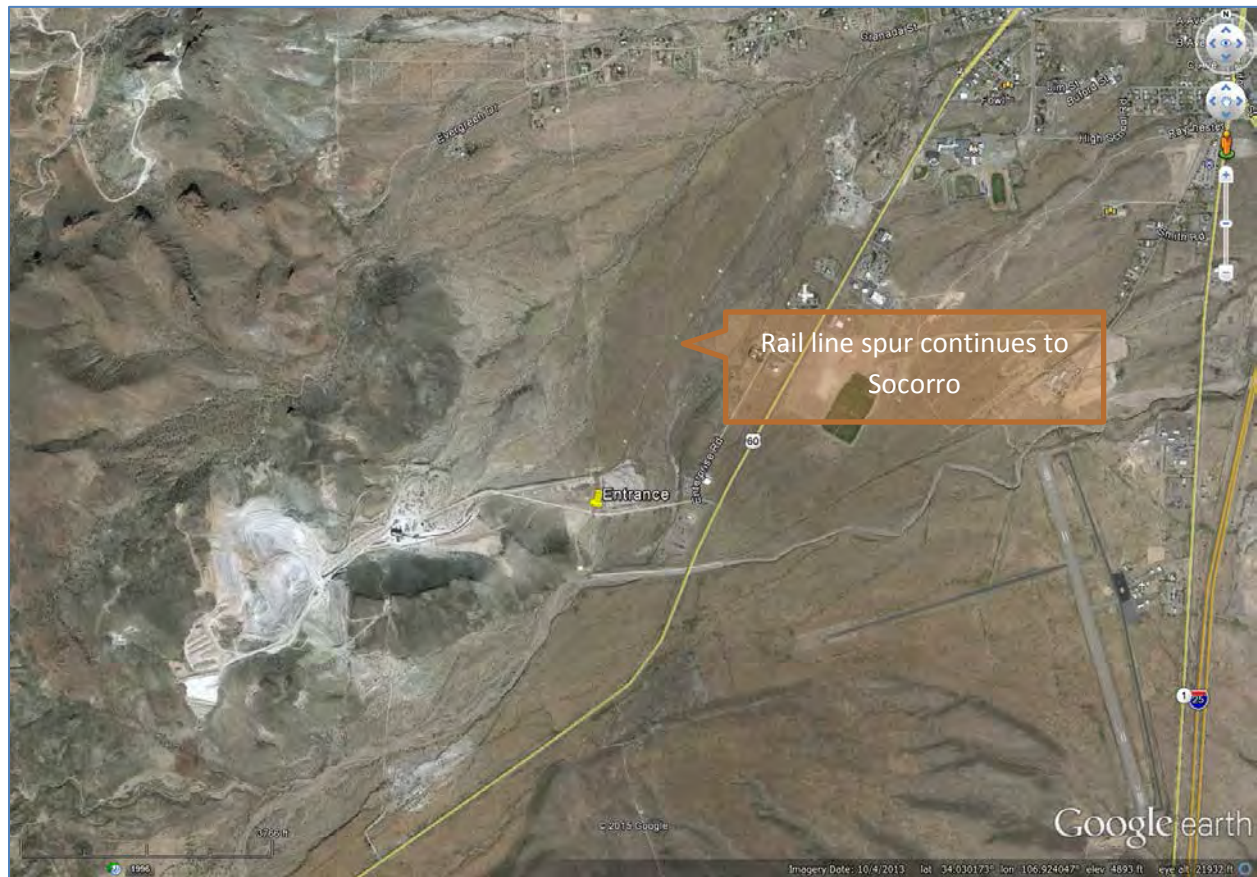


**Figure 1 General Location Map  
Socorro Perlite Quarry and Plant Location**





**Figure 2 Socorro Perlite Quarry and Plant, and Rail Line Spur (Image date October 4, 2013)**



<b>NMED/SWQB</b> <b>Official Photograph Log</b> <b>Photo # 1</b>		
Photographer: Erin S. Trujillo	Date: 02/17/2015	Time: 1127 hours
City/County: South of Socorro / Socorro County		State: New Mexico
Location: Socorro Perlite Quarry and Plant		
Subject: On-site above-ground fuel storage and signage in mill area.		



<b>NMED/SWQB</b> <b>Official Photograph Log</b> <b>Photo # 2</b>		
Photographer: Erin S. Trujillo	Date: 02/17/2015	Time: 1127 hours
City/County: South of Socorro / Socorro County		State: New Mexico
Location: Socorro Perlite Quarry and Plant		
Subject: Rail and truck loading area in mill area. Foreground of photo shows example of vehicle tracks in perlite (white aggregate).		





<b>NMED/SWQB</b> <b>Official Photograph Log</b> <b>Photo # 3</b>		
Photographer: Erin S. Trujillo	Date: 02/17/2015	Time: 1138 hours
City/County: South of Socorro / Socorro County		State: New Mexico
Location: Socorro Perlite Quarry and Plant		
Subject: Entrance to sediment pond in northeast corner of mill area shown in next photo.		



<b>NMED/SWQB</b> <b>Official Photograph Log</b> <b>Photo # 4</b>		
Photographer: Erin S. Trujillo	Date: 02/17/2015	Time: 1140 hours
City/County: South of Socorro / Socorro County		State: New Mexico
Location: Socorro Perlite Quarry and Plant		
Subject: Sediment control basin in northeast corner of mill area. No outlet or spillway observed		



<b>NMED/SWQB</b> <b>Official Photograph Log</b> <b>Photo # 5</b>		
Photographer: Erin S. Trujillo	Date: 02/17/2015	Time: 1141 hours
City/County: South of Socorro / Socorro County		State: New Mexico
Location: Socorro Perlite Quarry and Plant		
Subject: Arrows point to dark discoloration on ground surface along rail line spur.		



<b>NMED/SWQB</b> <b>Official Photograph Log</b> <b>Photo # 6</b>		
Photographer: Erin S. Trujillo	Date: 02/17/2015	Time: 1145 hours
City/County: South of Socorro / Socorro County		State: New Mexico
Location: Socorro Perlite Quarry and Plant		
Subject: A berm existed along the north side of the access road but did not continue in this eroded area. Arrow points to culvert with an outlet below access road.		



Main access road



<b>NMED/SWQB</b> <b>Official Photograph Log</b> <b>Photo # 7</b>		
Photographer: Erin S. Trujillo	Date: 02/17/2015	Time: 1148 hours
City/County: South of Socorro / Socorro County		State: New Mexico
Location: Socorro Perlite Quarry and Plant		
Subject: Example of drainageway (tributary) north of access road. An outfall (monitoring location) was not located in this area on the facility's site map.		



<b>NMED/SWQB</b> <b>Official Photograph Log</b> <b>Photo # 8</b>		
Photographer: Erin S. Trujillo	Date: 02/17/2015	Time: 1154 hours
City/County: South of Socorro / Socorro County		State: New Mexico
Location: Socorro Perlite Quarry and Plant		
Subject: Example of tributary below sediment pond in north portion of site near property boundary.		



<b>NMED/SWQB</b> <b>Official Photograph Log</b> <b>Photo # 9</b>		
Photographer: Erin S. Trujillo	Date: 02/17/2015	Time: 1216 hours
City/County: South of Socorro / Socorro County		State: New Mexico
Location: Socorro Perlite Quarry and Plant		
Subject: Example of metal and equipment storage on site. Quarry is located in background of photo.		



<b>NMED/SWQB</b> <b>Official Photograph Log</b> <b>Photo # 10</b>		
Photographer: Erin S. Trujillo	Date: 02/17/2015	Time: 1243 hours
City/County: South of Socorro / Socorro County		State: New Mexico
Location: Socorro Perlite Quarry and Plant		
Subject: Above-ground waste oil tank in concrete containment structure in mill area. Waste oil is used to run the perlite ore dryer.		





<b>NMED/SWQB</b> <b>Official Photograph Log</b> <b>Photo # 11</b>		
Photographer: Erin S. Trujillo	Date: 02/17/2015	Time: 1248 hours
City/County: South of Socorro / Socorro County		State: New Mexico
Location: Socorro Perlite Quarry and Plant		
Subject: Non-stormwater at fill area for dust control water trucks. Flow did not exit mill area.		



<b>NMED/SWQB</b> <b>Official Photograph Log</b> <b>Photo # 12</b>		
Photographer: Erin S. Trujillo	Date: 02/17/2015	Time: 1253 hours
City/County: South of Socorro / Socorro County		State: New Mexico
Location: Socorro Perlite Quarry and Plant		
Subject: Shallow erosion feature or drainageway down gradient (northeast) of next photo		





<b>NMED/SWQB</b> <b>Official Photograph Log</b> <b>Photo # 13</b>		
Photographer: Erin S. Trujillo	Date: 02/17/2015	Time: 1254 hours
City/County: South of Socorro / Socorro County		State: New Mexico
Location: Socorro Perlite Quarry and Plant		
Subject: Shallow erosion feature or drainage way down gradient (northeast) of next photo. White material in drainage way is different than surrounding aggregate.		



<b>NMED/SWQB</b> <b>Official Photograph Log</b> <b>Photo # 14</b>		
Photographer: Erin S. Trujillo	Date: 02/17/2015	Time: 1255 hours
City/County: South of Socorro / Socorro County		State: New Mexico
Location: Socorro Perlite Quarry and Plant		
Subject: A portion of the drainage from the perlite stockpile, equipment storage, and vehicle parking area in this portion of the mill area appeared to flow toward shallow drainage way (shown in previous photos) down gradient (northeast) toward property boundary.		



<b>NMED/SWQB</b> <b>Official Photograph Log</b> <b>Photo # 15</b>		
Photographer: Erin S. Trujillo	Date: 02/17/2015	Time: 1407 hours
City/County: South of Socorro / Socorro County		State: New Mexico
Location: Socorro Perlite Quarry and Plant		
Subject: Waste dump in southwest portion of mine.		



<b>NMED/SWQB</b> <b>Official Photograph Log</b> <b>Photo # 16</b>		
Photographer: Erin S. Trujillo	Date: 02/17/2015	Time: 1433 hours
City/County: South of Socorro / Socorro County		State: New Mexico
Location: Socorro Perlite Quarry and Plant		
Subject: Emergency access road south of mine.		



<p align="center"><b>NMED/SWQB</b>  <b>Official Photograph Log</b>  <b>Photo # 17</b></p>		
Photographer: Erin S. Trujillo	Date: 02/17/2015	Time: 1437 hours
City/County: South of Socorro / Socorro County		State: New Mexico
Location: Socorro Perlite Quarry and Plant		
Subject: Drainageway (tributary) east of emergency access road south of mine.		



## Attachments





Submission of this completed Notice of Intent (NOI) constitutes notice that the operator identified in Section B of this form requests authorization to discharge pollutants to waters of the United States from the facility or site identified in Section C under EPA's NPDES Stormwater Multi-Sector General Permit (MSGP) for industrial stormwater. Submission of this NOI constitutes your notice to EPA that the facility identified in Section C of this form meets the eligibility conditions of Part 1 of the MSGP. Please read and make sure you comply with all eligibility requirements, including the requirement to prepare a stormwater pollution prevention plan. Refer to the instructions at the end of this form to complete your NOI.

**A. Permit  
Number:**

nm R 05

(see Appendix C of the MSGP for the list of  
eligible permit numbers)

Tracking Number (EPA Use Only):

**B. Facility Operator Information**

1. Name: Dicapertl Minerals Corp

2. IRS Employer Identification Number (EIN): 95 4554880

## 3. Mailing Address:

a. Street: P.O. Box 1436

b. City: Socorro

c. State: NM d. Zip Code: 87801

e. Phone: 575-835-2892 f. Fax (optional): 575-835-2894

g. E-mail: anorris@dicapertl.com

**C. Facility Information**

1. Facility Name: Socorro mine and mill

2. Have stormwater discharges from your site been covered previously under an NPDES permit? ☒ YES ☐ NO

a. If yes, provide the Tracking Number if you had coverage under EPA's MSGP 2000 or the NPDES permit number if you had coverage under an EPA individual permit.

NMR05B054

b.1 If no, was your facility in operation and discharging stormwater prior to October 30, 2005? ☐ YES ☐ NOb.2 If no to C.2.b.1, did your facility commence discharging after October 30, 2005 and before January 5, 2009? ☐ YES ☐ NO

## 3. Location Address:

a. Street: 1900 Griefco Road

b. City: Socorro

c. County or similar government subdivision: Socorro

d. State: NM e. Zip Code: 87801

f. Latitude: (use any one of the three formats provided.)  
1. 34° 01' 35" N (degrees, minutes, seconds)  
2. \_\_\_\_\_° \_\_\_\_\_' \_\_\_\_\_" N (degrees, minutes, decimal)  
3. \_\_\_\_\_° N (degrees decimal)g. Longitude: (use any of these 3 formats)  
1. 106° 56' 03" W (degrees, minutes, seconds)  
2. \_\_\_\_\_° \_\_\_\_\_' \_\_\_\_\_" W (degrees, minutes, decimal)  
3. \_\_\_\_\_° W (degrees decimal)h. Lat/Long Data Source: ☐ USGS topographic map ☐ EPA web site ☒ GPS ☐ Other: \_\_\_\_\_

If you used a USGS topographic map, what was the scale? \_\_\_\_\_

4. Estimated area of industrial activity at your site exposed to stormwater: 160 (acres)

5. Is this a federal facility? ☐ YES ☒ NO6. Is your facility located on Indian Country lands? ☐ YES ☒ NO

If yes, name of reservation, or if not part of a reservation, put "Not Applicable:" \_\_\_\_\_

1. Does your facility discharge stormwater into a Municipal Separate Storm Sewer System (MS4)? ☒ YES ☐ NO

2. Receiving Waters and Wetlands (Note: If additional space is needed for this question, fill out Attachment 1)

### 3. Water Quality Standards (for new dischargers only)

- a. Are any of your discharges into any portion of a receiving water designated by the state or tribal authority under its antidegradation policy as a Tier 2 (or Tier 2.5) water (water quality exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water)? ☐ YES ☐ NO
- b. Has the receiving water(s) been designated by the state or tribal authority under its antidegradation policy as a Tier 3 water (Outstanding Natural Resource Water)? ☐ YES ☐ NO

a. Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? ☐ YES ☒ NO

- b. If yes, which effluent limitation guidelines apply to your stormwater discharges?

c. If you are a Sector S (Air Transportation) facility, do you anticipate using more than 100,000 gallons of glycol-based deicing/anti-icing chemicals and/or 100 tons or more of urea on an average annual basis? ☐ YES ☐ NO

Primary SIC Code: 1499 OR Primary Activity Code

6. Identify the applicable sector(s) and subsector(s) of industrial activity, including co-located industrial activity, for which you are requesting permit coverage:

- a. Sector  Subsector
- b. Sector  Subsector
- c. Sector  Subsector
- d. Sector  Subsector
- e. Sector  Subsector
- f. Sector  Subsector

- 7.a. Is your site presently inactive and unstaffed? ☐ YES ☒ NO
- b1. If yes, is your site expected to be inactive and unstaffed for the entire permit term? ☐ YES ☐ NO

b2. If you select "no" in 7.b1 above, then indicate the length of time that you expect your facility to be inactive and unstaffed

**E. Stormwater Pollution Prevention Plan (SWPPP) Contact Information**

1a. SWPPP Contact Name:

Allen Norris

b. Phone:

575 835 2892

Ext.:

111

E-mail: anorris@dicalite-dicaperl.com

2. URL of SWPPP (if applicable):

**F. Endangered Species Protection**

1. Using the instructions in Appendix E of the MSGP, under which criterion listed in Part 1.1.4.5 are you eligible for coverage under this permit?

☐ A ☐ B ☐ C ☒ D ☐ E ☐ F

2. If you select criterion E from Part 1.1.4.5:

a. What federally-listed species or federally-designated critical habitat are in your "action area"? Socorro isopod (Pyrgulopsis neomexicana),  
Southwestern willow flycatcher (Empidonax traillii extimus) and Rio Grande silvery minnow (Hybognathus amarus)b. List the pollutants expected to be present in your discharge Unexpanded perlite orec. If you are an existing discharger, do you have effluent monitoring data from EPA's MSGP 2000, or another previous NPDES permit? ☐ YES ☒ NOc.1 If no, why not? ☒ No monitoring required for my sector ☐ Inactive/unstaffed site ☐ Other \_\_\_\_\_

c.2 Do you have any other data characterizing pollutants in your stormwater (describe)? \_\_\_\_\_

c.3 If you have benchmark monitoring data, did you exceed any of the applicable benchmarks? ☐ YES ☐ NOc.4 Did you exceed any applicable effluent limitation guideline or cause or contribute to an exceedance of a State or Tribal water quality standard? ☐ YES ☒ NO

c.5 If you answered "yes" to either question F.2.c.3 or F.2.c.4 above, for what pollutant(s)? \_\_\_\_\_

d. Attach documentation supporting criterion E eligibility. Documentation should address species and habitat listed in F.2.a and the potential effects of pollutants listed in F.2.b (including any monitoring data for these pollutants) on the listed species and habitat.

3. If you select criterion F from Part 1.1.4.5, provide the operator's NPDES Tracking Number under which you are certifying eligibility:

1111111111

**G. Historic Preservation**

Using the instructions in Appendix F of the MSGP, under which criterion listed in Part 1.1.4.6 are you eligible for coverage under this permit?

☐ A ☒ B ☐ C ☐ D**H. Certifier Name and Title**

I certify under penalty of law that I meet the eligibility conditions of this permit and that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Print Name:

Allen Norris

Title:

Plant Manager

Signature:



Date: 11/25/08

E-mail: anorris@dicalite-dicaperl.com

**NOI Preparer (Complete if NOI was prepared by someone other than the certifier)**

Prepared by:

1111111111

Organization:

1111111111

Phone:

111 - 111 - 1111

Ext.:

111

E-mail:



# DICAPERL MINERALS CORP.

P.O. Box 1436  
Socorro, NM 87801  
(505) 835-2892

To: Walley Murphy, US Fish & Wildlife Service

From: Allen Norris

Date: November 13, 2008

Subject: Endangered Species Audit for NPDES Permit Update

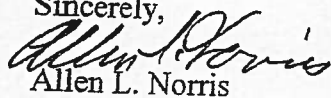
On Wednesday November 12, 2008 I talked with Joe Lufk about a consultation to find out about any endangered species in the area of our mine and its potential storm-water discharges. Joe requested a map of our area which has been enclosed, to help determine the location and potential impact on the species located in my area. Below is a description of our location and the process we have at our site along with any expected discharges.

Dicaperl Minerals Corp. (DMC) mines, dries and classifies perlite ore at our Socorro, NM site. This entails ripping of the deposit then hauling the crude ore to our processing system to introduce the ore to the plant. This ore is dried to minimize the surface moisture then the ore is screened and classified to the separate sizes. These separate sizes are blended and shipped out, mostly by rail, to sites throughout the country including Canada and Mexico.

Perlite is a naturally occurring volcanic glass which is mostly inert. OSHA considers it to be a nuisance dust. An MSDS is available at [www.dicalite.com/NEWPerlMSDS.pdf](http://www.dicalite.com/NEWPerlMSDS.pdf).

Our site is located in sections 21, 22, 27 and 28 of T3S, R1W NMPM, which is southwest of the City of Socorro. On the map our property boundary is marked in orange. There are two drainages from the mine. Both are diverted away from the City of Socorro. The drainages from the north and northeast boundaries are diverted to the west of the city and into the Escondida diversion canal located north of the city. All other drainages are diverted to the Arroyo de la Matanza located east of the DMC property and south of the city. While both of these drainages have the potential to reach the Rio Grande, Dixie Daniels at the City of Socorro informed me that the water from these drainages goes into irrigation canals and doesn't see the river for about 70 miles down-stream. Also, there are activity areas marked on the map. Waste ore dumps have been marked in green with all but the dump at the southwest corner of the site having been covered with topsoil and planted for reclamation. All drainages from disturbed areas are protected with sediment basins.

Sincerely,



Allen L. Norris

Plant Manager

Dicaperl Minerals Corp.

anorris@dicalite-dicaperl.com



## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

New Mexico Ecological Services Field Office  
2105 Osuna Road, NE  
Albuquerque, New Mexico 87113  
Phone: (505) 346-2525; Fax: (505) 346-2347

November 19, 2008

Cons. # 22420-2009-I-0014

Allen Norris, Plant Manager  
Dicaperl Minerals Corporation  
P.O. Box 1436  
Socorro, New Mexico 87801

Dear Mr. Norris:

Thank you for your November 13, 2008, letter and map regarding the quality of stormwater from the Dicaperl Minerals Corporation perlite mine in Socorro, New Mexico. The perlite mine is located in Sections 21, 22, 27 and 28 of Township 3 South, Range 1 West of the New Mexico Principal Meridian. According to your letter, stormwater from the mine is either captured in settling basins or diverted around Socorro to Nogal Arroyo or to Arroyo de la Matanza. According to your letter, (citing D. Daniels, City of Socorro, personal communication), waters in these drainages are captured by irrigation and/or riverside drains and therefore, are not likely to reach the Rio Grande or adversely affect endangered species near the Rio Grande. Additionally, the Best Management Practices applied to the mine and topsoil dump areas at the northern section are such that stormwater quality is not expected to affect the Sedillo Spring drainage system occupied by the endangered Socorro isopod (*Pyrgulopsis neomexicana*). Therefore, the U.S. Fish and Wildlife Service (Service) concurs with your finding that the stormwater generated from the operation of the Dicaperl Mine, "may affect, but is not likely to adversely affect" the Socorro isopod, the southwestern willow flycatcher (*Empidonax traillii extimus*) or the Rio Grande silvery minnow (*Hybognathus amarus*) or their designated critical habitat.

This concludes the Endangered Species Act section 7 consultation regarding the perlite mine's stormwater quality. If monitoring or other information identifies effects from stormwater to listed species in a manner that was not considered during this analysis, or a new species is listed or critical habitat designated that may be affected by the action, consultation with the Service

Allen Norris, Plant Manager

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should be reinitiated. Thank you for your concern for endangered species and New Mexico's wildlife habitats. In future communications regarding this project please refer to Consultation #22420-2009-I-0014. If you have any questions, please contact Joel Lusk at the address above or at (505) 761-4709.

Sincerely,

Wally Murphy  
Field Supervisor

cc:

Director, New Mexico Department of Game and Fish, Santa Fe, New Mexico (Attn. B. Lang)

**AFFIDAVIT OF PUBLICATION**

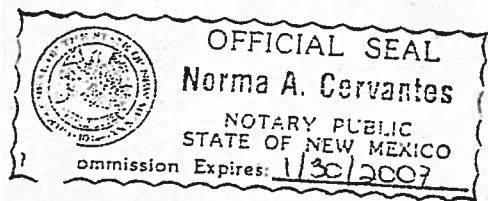
STATE OF NEW MEXICO )  
 ) SS.  
 COUNTY OF SOCORRO )

I, Audrey Olmsted, being first duly sworn, deposes and says that she is Assistant Editor of "El Defensor Chieftain"; that said "El Defensor Chieftain" is a semi-weekly newspaper of general paid circulation in the County of Socorro, State of New Mexico, which is entered under the second class postal privilege and is published in Socorro, Socorro County, New Mexico; that said "El Defensor Chieftain" is a newspaper duly qualified in all respects for the purpose of publishing legal notices and advertisements in Socorro County, New Mexico; that the publication, a copy of which is hereto attached was published in the regular and entire issue of every number of said newspaper during the period of publications, and that said notice was and published in the newspaper proper and to a supplement of of 5 time(s); the first publication began on the Feb 15, 2006 and the last publication on the March 1, 2006.

Audrey Olmsted  
 Affiant

Subscribed and sworn to before me this 27<sup>th</sup> day of April, 2006.

Norma A. Cervantes  
 Notary Public



SOCORRO COUNTY

**LEGAL NOTICE**

NOTICE is hereby given that on January 17, 2006, Dicaperl Minerals Corporation, C/O Allen Norris, Plant Manager, P.O. Box 1436, Socorro, NM 87801, filed application No. RG-25399 with the STATE ENGINEER for permit to change location of well by ceasing the use of existing shallow well RG-25399 located in the NE 1/4 SW 1/4 of Section 27, Township 3 South, Range 1 West, N.M.P.M., on land owned by Dicaperl Mineral Corporation.

The applicant proposes to commence the diversion of 20 acre-feet per annum of shallow groundwater to be diverted from a shallow well to be drilled to an approximate depth of 550 feet and 5 inches in diameter at a point in the NE 1/4 SW 1/4 SW 1/4 of Section 27, township 3 South, Range 1 West, N.M.P.M., on land owned by Dicaperl Minerals Corporation.

The applicants state that the old well will be plugged.

The move-from and move-to wells are located approximately 1 1/4 miles southwest of the intersection of Grefco Street and Grant Street, Socorro County, N.M.P.M.

Any person, firm or corporation or other entity having standing to file objections or protests shall do so in writing (legible, signed, and include the writer's complete name and mailing address). The objection to the approval of the application (1) if impairment, you must specifically identify your water rights; and/or (2) if public welfare or conservation of water within the State of New Mexico,

you must show you will be substantially affected. The written protest must be filed, with the State Engineer, 121 Tijeras, N.E., Suite 2000, Albuquerque, New Mexico 87102, within (10) days after the date of the last publication of this Notice. Facsimile's (fax's) will be accepted as a valid protest as long as the hard copy is sent within 24-hours of the facsimile. Mailing postmark will be used to validate the 24-hour period. Protests can be faxed to (505) 764-3892. If no valid protest or objection is filed, the State Engineer will evaluate the application in accordance with Sections 72-2-16, 72-5-6 and 72-12-3.

Dicaperl/App'l  
 Feb. 15, 22, March 1, 2006

Storm Water Pollution Prevention Plan  
for  
Dicaperl Minerals Corp.  
Socorro Mine and Mill

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Copy of NOI along with all Correspondence

Copy of acknowledgment letter from NOI Processing Center

Copy of Permit

Descriptions and dates of significant spills, leaks or other releases

Records of training

Documentation of maintenance and repairs of control measures

Inspection reports

Description of any deviations from schedule for visual assessments and/or monitoring and the reason for deviations.

Description of any corrective action taken at site including triggering event and dates when problems were discovered.

Documentation of benchmark exceedances and how they were responded to.

### Storm Water Pollution Prevention Team(SWPPT)

The SWPPT is made up of the Plant Manager, the Operations Coordinator and the Maintenance Coordinator.

### Site Description

#### **Activities**

The main activities are mining and milling of perlite ore with the desired results being shipping out of the final product. Ore is loosened by ripping the rock with the dozer then the ore is hauled to the feed stockpile area. The ore is fed through a grizzly, onto a pan feeder then over a screen with the oversized material being crushed by the jaw crusher. The sized material is stacked by a belt conveyor in preparation for feeding to the plant. The stockpiled ore feeds onto a belt conveyor which transports it to the mill building where it is screened and sized again then fed to the drier. The drier is heated with waste oil and heats the ore to approximately 250°F to drive off the surface moisture. The hot ore is then fed to the screening plant where it is screened, crushed and classified to the desired sizes then stored in bins. The bins drop ore onto a belt which transports the ore to the load-out building for loading into railcars, trucks or bags. The primary shipping method is via railroad with the remainder being shipped by truck.

#### **Location and Drainage**

The Dicaperl Minerals Corp.(DMC) Socorro site is located in Socorro County southwest of the City of Socorro, with disturbances in sections 21, 22, 27 and 28 of Township 3South, Range 1 West of New Mexico Principle Meridian. There are two main drainages from the site both are diverted by the City of Socorro. Drainages from the north and northeast boundaries are diverted to the west of the city and into the Escondida diversion canal for Nogal Arroyo located north of the city. All other drainages are diverted to the Arroyo de la Matanza located east of the DMC property and south of the city. Both of the diversions eventually drain into the Rio Grande river. Waste ore dumps are located throughout the site along with one topsoil dump located in Section 28 along the north property boundary. All waste dumps have been reclaimed with the exception of the active dump, Dump G, located in the southwest corner of the site. All drainages from disturbed areas are protected with sediment basins. Total site size is 675.44 acres.

#### **Maps**

There are two site maps and a general location map to show the details necessary to fulfill the requirements of the permit. Site Map 1 is an 18"x24" map of the entire property in 1"= 400' scale. A 11x17" copy of Site Map 1 is in the file while the main map is located in the map storage located in the Plant Managers office. Map 2 is an 8 1/2"x 11 map of the plant site in 1"= 100' scale. The General Location Map(GLM) is printed on an 8 1/2"x 11 sheet and is provided in 1"= 1.6 miles scale and shows the property boundary, the City of Socorro and the two drainages flowing to the Rio Grande. This GLM also shows the active mining and dump areas as well as MS4 contacts and the plant site.



## Potential Pollutant Sources

### **Summary**

The primary potential pollutant is raw perlite ore which is essentially inert and would only be considered a particulate pollutant. While perlite is the main concern due to the use of machinery and the use of waste oil as a burner fuel there is a small potential for petroleum pollutants to be encountered on the site.

### **Activities**

The main activities which affect the potential for pollutants is the mining and processing of perlite ore. This ore is crushed to various sizes which results in the potential for loss of material via winds and water. Again, as this material is essentially harmless especially when wet this doesn't create a problem except as a suspended solid particulate. However, due to the use of mobile equipment and machinery to crush and transport the ore as well as waste oil burner fuel to dry the ore there are potentials for hydrocarbons to be encountered throughout the site.

There are two fueling areas, one waste oil storage area, two new oil storage areas, an equipment service area and an equipment parking area located on the site. The primary fuel site is a 10,000 gallon storage tank located in the quarry for fueling the quarry equipment. Any spills from this area will remain in the quarry and do not have the potential to exit the quarry area. The secondary fueling area is located on the east side of office parking lot and contains a 500 gallon gasoline tank and a 300 gallon undyed diesel tank. Both of these tanks are located inside a concrete containment area. The waste oil burner fuel storage is made up of two 20,000 gallon tanks located inside a concrete containment area located south of the screening building. One of the new oil storage areas is two 500 gallon tanks inside metal containment pans which are located at the east end of the quarry diesel tank and any spills would remain in the quarry area. The second new oil storage area is a covered area near the secondary fueling site. 55 gallon drums and smaller containers are stored here. Drainages from this area and any from the secondary fueling site drain to a low area located to the SE of this site and has a very low potential for contaminating storm water. The equipment service and parking areas drain onto a waste ore dump located NE of these areas and any potential for storm water contamination is controlled with settling basins.

Through out the plant site and inside the maintenance shop there is the potential to have metal working activities. These activities generally would be cutting, grinding and welding. All drainages from these areas are protected with settling basins.

### **Pollutants**

- 1) Perlite.
- 2) Burner Fuel- Waste oil.
- 3) Diesel Fuel- two locations primary dyed diesel secondary clear diesel.
- 4) Oils- Fleet engine oil- bulk tanks 10w and 30w, TO4 10w and 30w, Strata Extreme 15w40, Certop 80w90, AEON 4000, 9000SP and PD, Multipurpose R&O oils, Universal Gear lubricant 80w90.
- 5) Grease- Premalube Extreme #1 & #2, Dynalife GC-LB, Super-Sta.
- 6) Solvents- Tekusolv II Red, Cleaner Solvent, Safety-Kleen Premium Solvent.

- 7) Gasoline- Unleaded.
- 8) Antifreeze- Sierra= Propylene Glycol, Full Force= Ethylene Glycol.
- 9) Very small quantities of various other pollutants are on site. For a complete list of these pollutants please refer to the Hazcom-MSDS manual.

### **Spills & Leaks**

If a spill occurred from the primary diesel tank or the bulk 10w and 30w tanks in the quarry the spilled material would remain within the quarry area with an extremely low potential for any material to be transported to an outfall area. #3 outfall would be only potentially affected area.

Any spills from secondary diesel/gasoline storage area as well as the covered small quantities storage area nearby would drain to low area SE of these locations. There is a small potential for any spilled material to reach an outfall area. The affected outfall would be #2.

Potential spills occurring around the maintenance shop, in equipment service area and in equipment parking area could potentially drain to sediment basins near outfall area #2. However the potential for any significant spills or leaks is extremely low.

No known spills or contamination has occurred in any outfalls in the past three years.

### **Non-Stormwater Discharges (evaluation date 11/14/08)**

There are two primary uses for water on the site, #1 dust control around mill and on roads and #2 facility bathrooms which drain to an on-site septic system. Neither of these two primary uses place enough water in any one area to cause a discharge from the site. The source for these waters is an underground well located in the SW1/4 of section 27 and transported to a storage tank on the hill south of the plant via an underground pipeline. Water from the tank is also conveyed to the plant in underground pipes. The underground pipelines are the most likely source of a non-stormwater discharge which would be possible if an underground line broke. Areas south of the plant are the most likely to have this happen but drainage in the disturbed areas where a leak is likely is toward low areas where there is little chance of this water reaching an outflow area.

Occasionally high pressure washers are used to clean equipment but the flows from these activities have never been observed to reach any outfall area. This is most likely due to the small volumes used.

Outfall areas 2, 3, 4, 5 and 6 have not had sufficient water to cause discharges in the past three years. One of these years had rainfalls events exceeding the 100 year/24 hour rainfall and still no flows were observed in these outfalls past any sediment basin located in these areas.

### **Description of Control Measures**

The main control measures used for stormwater are the 11 sediment basins used to protect the outfalls of disturbed areas as well as low areas with low potential to drain to outfall areas. Also, there are containments for bulk oil tanks, secondary diesel and gasoline and waste-oil

burner fuel tanks.

## **Schedules and Procedures**

### Pertaining to Control Measures

**Housekeeping-** Housekeeping inspections are completed each shift throughout the site to ensure a clean and healthy work environment. These inspections are completed by the personnel assigned to the work area and checked by the Coordinator responsible for the area.

**Maintenance of Control Measures-** Maintenance of the control measures is to be scheduled upon a report that there is a problem in an area.

**Spill Prevention and Response Procedure-** Should it be observed that there is a spill in one of the control areas or should one of the containment or sediment basins be close to capacity or need attention. Repairs should be completed as soon as they can be completed safely.

### Pertaining to Monitoring and Inspection

**Benchmark Monitoring-** Beginning April 1, 2009 sample each outfall area once each quarter to establish baseline, however, due to the erratic nature of rainfall at the Socorro site each rainfall event which causes measurable flows from the outfalls should have samples collected. Each outfall where flow is observed should be sampled with a grab sample collected in a glass or plastic 500 mL or 1 L container. If the average of the first four samples are below benchmark limits then no further sampling needs be completed. However, if average is above benchmark limit then control measures must be evaluated and modified to achieve the benchmark limit. After modifications benchmark sampling is restarted.

**Effluent Limitations-** Sampling is for Total Suspended Solids(TSS) with a benchmark limit of 100 mg/L making allowances for natural background pollutant levels.

**Locations of Sampling-** There are six potential flow areas.

**Outfall #1** sample area is north of the railroad grade and should be sampled at the property boundary from drainage coming from culvert under railroad grade. This is the most likely outfall to have measurable flows.

**Outfall #2** sample area is northeast of waste ore dump C and should be sampled where two drainages come together approximately 300' north of the property boundary.

**Outfall #3** sample area is north of waste ore dump C at property boundary below the sediment basin.

**Outfall #4** sample area is northeast of topsoil dump A below sediment basin.

**Outfall #5** sample area is south of waste ore dump G below sediment basin.

**Outfall #6** sample area is southeast of waste ore dump F below the curve in the road.

**Sampling procedure-** Using a clean 500mL or 1L sample jar dip sample jar into the flow without disturbing the streambed or sides. Place lid tightly on jar. If sample will not be run immediately refrigerate sample. Document date, time and conditions for sample.

**Measurement method-** The sample should be measured using standard method 2540 D. Attached.

**Sampling frequency-** Due to the infrequent nature of rainfall at the DMC Socorro site the samples will need to be collected during the first four rain events which cause measurable flows

in an outfall. If measurable flows are found in any outfall conditions of the remaining outfall areas should be observed, conditions noted and if measurable flow is present a sample should be collected.

#### Numeric Control Value-

Procedures- This section describes when a sample should be collected, who is to complete the collection and the training they are to have.

Samples are to be collected anytime there is sufficient rainfall to cause runoff from the outfall areas. The person responsible for ensuring that a sample is taken will be the highest ranking of the following who is present at the time of the flow event. Plant manager, Production Coordinator, Maintenance Coordinator, Production Lead-man, Maintenance Lead-man. The clean sample containers are to be kept in the Classifier Lab room at the north end of the lab trailer. The samples are to be presented to the Technical Manager after collection or stored in the refrigerator if he is not on the site. If the samples are stored then a note should be written on the Mill Shift Report documenting the collection and storage of the sample. Any person holding one of the above listed positions is to be shown each of the potential collection sites, sample collection methods and the location of clean bottle storage as well as be instructed in the reasoning behind the necessity of collecting the water samples. The training person should be the Plant Manager or the Production Coordinator.

#### Inspections

Routine Inspections- Inspections are required to be completed at least once each quarter. These inspection are to be documented on the Routine Inspection Form with all items completed. If any additional information is required it is to be documented on the back of the form and the form is to be turned in to the Plant Manger. These inspections are to be completed by one of the following persons: Plant Manger, Production Coordinator, Maintenance Coordinator or by a competent person designated by one of the above individuals.

Quarterly Visual Assessment- Due to the erratic nature of rainfall at the Socorro site the first four rainfall events which create measurable flows each year should have samples collected from the discharges and the samples observed as directed in the Quarterly Visual Assessment Form. The person responsible for ensuring that a sample is taken will be the highest ranking of the following who is present at the time of the flow event. Plant manager, Production Coordinator, Maintenance Coordinator, Production Lead-man, Maintenance Lead-man

Annual Comprehensive Site Inspection- These inspections are to be completed by one of the following persons: Plant Manger, Production Coordinator, Maintenance Coordinator or by a competent person designated by one of the above individuals. The inspection is to include all active and disturbed areas of the site and is to cover all items listed on the Annual Comprehensive Site Inspection Form. This inspection can also be used to fulfill the requirements on one of the Routine Inspections required above.

Signature below indicates that it is believed that the above requirements are met and that all aspects of the SWPPP are covered to the best of signatory knowledge and ability.

Signature of Company Official \_\_\_\_\_ Date \_\_\_\_\_

**Storm Water Pollution Prevention Plan  
Routine Inspection Form**

Date Of Inspection \_\_\_\_\_ Start time \_\_\_\_\_ Completion Time \_\_\_\_\_

Inspector(s) \_\_\_\_\_

Weather Conditions \_\_\_\_\_

Were any discharges observed during the inspection? \_\_\_\_ If yes provide location \_\_\_\_\_

Were there any previously unidentified discharges of pollutants? \_\_\_\_\_

List condition of each of the control measures in each outfall and note if there were any failures or if repairs are needed. Also please note condition of outfall area and if cleanup is needed.

Outfall #1 \_\_\_\_\_

#2 \_\_\_\_\_

#3 \_\_\_\_\_

#4 \_\_\_\_\_

#5 \_\_\_\_\_

#6 \_\_\_\_\_

Is there any evidence of noncompliance observed? \_\_\_\_\_

Is there a need for additional control measures in any outfall area? If so list below.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signature(s) of Inspector(s) \_\_\_\_\_

**Storm Water Pollution Prevention Plan  
Quarterly Visual Assessment Form**

The sample for this assessment is to be collected in a clean, clear container and should be examined in a well lit area. The sample is to be collected within 30 minutes of the beginning of a discharge flow or the reason for the delay is to be recorded below.

Date Of Sample \_\_\_\_\_ Location of Sample \_\_\_\_\_  
Collection time \_\_\_\_\_  
Person Collecting Sample \_\_\_\_\_  
Condition of Sampled Outfall area and cause of Outfall Flow ie. Rain, Snowmelt  
\_\_\_\_\_

\_\_\_\_\_

If sample was not collected within the first 30 minutes of flow please document cause of delay.

\_\_\_\_\_

If signs of pollution in the discharge are obvious please document probable source(s).

\_\_\_\_\_

Signature of Collector \_\_\_\_\_

Date of Evaluation \_\_\_\_\_ Time of Evaluation \_\_\_\_\_  
Evaluator if different from Collector \_\_\_\_\_

The sample is to be observed for the following:

Color \_\_\_\_\_  
Odor \_\_\_\_\_  
Clarity \_\_\_\_\_  
Floating Solids \_\_\_\_\_  
Settled Solids \_\_\_\_\_  
Suspended Solids \_\_\_\_\_  
Foam \_\_\_\_\_  
Oil Sheen \_\_\_\_\_  
Other indications of stormwater pollution \_\_\_\_\_  
\_\_\_\_\_

Signature of Evaluator \_\_\_\_\_

**Storm Water Pollution Prevention Plan  
Annual Comprehensive Site Inspection Form**

Date Of Inspection \_\_\_\_\_ Start time \_\_\_\_\_ Completion Time \_\_\_\_\_

Inspector(s) \_\_\_\_\_

Weather Conditions \_\_\_\_\_

Were any discharges observed during the inspection? \_\_\_\_ If yes provide location \_\_\_\_\_

Were there any previously unidentified discharges of pollutants? \_\_\_\_\_

List condition of each of the control measures in each outfall and site area listed below and note if there were any failures or if repairs are needed. Also please note condition of area and if cleanup is needed.

Outfall #1 \_\_\_\_\_

#2 \_\_\_\_\_

#3 \_\_\_\_\_

#4 \_\_\_\_\_

#5 \_\_\_\_\_

#6 \_\_\_\_\_

Plant Site \_\_\_\_\_

Quarry \_\_\_\_\_

Active Dump \_\_\_\_\_

Is there any evidence of noncompliance observed? \_\_\_\_\_

Is there a need for additional control measures in any area? If so list below.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signature(s) of Inspector(s) \_\_\_\_\_



**Storm Water Pollution Prevention Plan  
Annual Comprehensive Site Inspection Form**

Date Of Inspection \_\_\_\_\_ Start time \_\_\_\_\_ Completion Time \_\_\_\_\_

Inspector(s) \_\_\_\_\_

Note: Review annual report form prior to inspection to ensure proper information collection.

Weather Conditions \_\_\_\_\_

Were any discharges observed during the inspection? \_\_\_\_ If yes provide location \_\_\_\_\_  
Were there any previously unidentified discharges of pollutants? \_\_\_\_\_

List condition of each of the control measures in each outfall and site area listed below and note if there were any failures or if repairs are needed. Also please note condition of area and if cleanup is needed.

Outfall #1 \_\_\_\_\_

#2 \_\_\_\_\_

#3 \_\_\_\_\_

#4 \_\_\_\_\_

#5 \_\_\_\_\_

#6 \_\_\_\_\_

Plant Site \_\_\_\_\_

Quarry \_\_\_\_\_

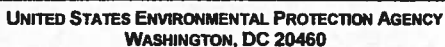
Active Dump \_\_\_\_\_

Is there any evidence of noncompliance observed? \_\_\_\_\_

Is there a need for additional control measures in any area? If so list below.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signature(s) of Inspector(s) \_\_\_\_\_



## A. GENERAL INFORMATION

<b>1. Facility Name:</b>	
--------------------------	--

2. NPDES Permit Tracking No.:

3. Facility Physical Address:

[illegible][illegible]

4. Lead Inspectors Name: \_\_\_\_\_ Title: \_\_\_\_\_

Additional Inspectors Name(s):

<b>5. Contact Person:</b>	<b>Title:</b>
---------------------------	---------------

[illegible]

6. Inspection Date: | | / | | / | | |

## B. GENERAL INSPECTION FINDINGS

1. As part of this comprehensive site inspection, did you inspect all potential pollutant sources, including areas where industrial activity may be exposed to stormwater?

☐ YES    ☐ NO

If NO, describe why not:

**NOTE:** Complete Section C of this form for each industrial activity area inspected and included in your SWPPP or as newly identified in B.2 or B.3 below where pollutants may be exposed to stormwater.

2. Did this inspection identify any stormwater or non-stormwater outfalls not previously identified in your SWPPP? ☐ YES ☐ NO

**If YES, for each location, describe the sources of those stormwater and non-stormwater discharges and any associated control measures in place:**

NPDES Permit Tracking No.:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

3. Did this inspection identify any sources of stormwater or non-stormwater discharges not previously identified in your SWPPP? ☐ YES ☐ NO

If YES, describe these sources of stormwater or non-stormwater pollutants expected to be present in these discharges, and any control measures in place:

4. Did you review stormwater monitoring data as part of this inspection to identify potential pollutant hot spots? ☐ YES ☐ NO ☐ NA, no monitoring performed

If YES, summarize the findings of that review and describe any additional inspection activities resulting from this review:

5. Describe any evidence of pollutants entering the drainage system or discharging to surface waters, and the condition of and around outfalls, including flow dissipation measures to prevent scouring:

6. Have you taken or do you plan to take any corrective actions, as specified in Part 3 of the permit, since your last annual report submission (or since you received authorization to discharge under this permit if this is your first annual report), including any corrective actions identified as a result of this annual comprehensive site inspection?

☐ YES ☐ NO

If YES, how many conditions requiring review for correction action as specified in Parts 3.1 and 3.2 were addressed by these corrective actions?

--	--	--

**NOTE:** Complete the attached Corrective Action Form (Section D) for each condition identified, including any conditions identified as a result of this comprehensive stormwater inspection.

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**C. INDUSTRIAL ACTIVITY AREA SPECIFIC FINDINGS**

**Complete one block for each industrial activity area where pollutants may be exposed to stormwater. Copy this page for additional industrial activity areas.**

In reviewing each area, you should consider:

- Industrial materials, residue, or trash that may have or could come into contact with stormwater;
- Leaks or spills from industrial equipment, drums, tanks, and other containers;
- Offsite tracking of industrial or waste materials from areas of no exposure to exposed areas; and
- Tracking or blowing of raw, final, or waste materials from areas of no exposure to exposed areas.

INDUSTRIAL ACTIVITY AREA \_\_\_\_\_:

1. Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO

3. Have any control measures failed and require replacement? ☐ YES ☐ NO

4. Are any additional/revised control measures necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

INDUSTRIAL ACTIVITY AREA \_\_\_\_\_:

1. Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO

3. Have any control measures failed and require replacement? ☐ YES ☐ NO

4. Are any additional/revised c necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

INDUSTRIAL ACTIVITY AREA \_\_\_\_\_:

Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO

3. Have any control measures failed and require replacement? ☐ YES ☐ NO

4. Are any additional/revised BMPs necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**NOTE: Copy this page and attach additional pages as necessary**

INDUSTRIAL ACTIVITY AREA \_\_\_\_\_:

1. Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO3. Have any control measures failed and require replacement? ☐ YES ☐ NO4. Are any additional/revised BMPs necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

INDUSTRIAL ACTIVITY AREA \_\_\_\_\_:

1. Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO3. Have any control measures failed and require replacement? ☐ YES ☐ NO4. Are any additional/revised BMPs necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

INDUSTRIAL ACTIVITY AREA \_\_\_\_\_:

1. Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO3. Have any control measures failed and require replacement? ☐ YES ☐ NO4. Are any additional/revised BMPs necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**D. CORRECTIVE ACTIONS**

**Complete this page for each specific condition requiring a corrective action or a review determining that no corrective action is needed. Copy this page for additional corrective actions or reviews.**

Include both corrective actions that have been initiated or completed since the last annual report, and future corrective actions needed to address problems identified in this comprehensive stormwater inspection. Include an update on any outstanding corrective actions that had not been completed at the time of your previous annual report.

1. Corrective Action # 



 of 



 for this reporting period.

2. Is this corrective action:

- ☐ An update on a corrective action from a previous annual report; or  
☐ A new corrective action?

3. Identify the condition(s) triggering the need for this review:

- ☐ Unauthorized release or discharge  
☐ Numeric effluent limitation exceedance  
☐ Control measures inadequate to meet applicable water quality standards  
☐ Control measures inadequate to meet non-numeric effluent limitations  
☐ Control measures not properly operated or maintained  
☐ Change in facility operations necessitated change in control measures  
☐ Average benchmark value exceedance  
☐ Other (describe): \_\_\_\_\_

4. Briefly describe the nature of the problem identified:

5. Date problem identified: 



 / 



 /

6. How problem was identified:

- ☐ Comprehensive site inspection  
☐ Quarterly visual assessment  
☐ Routine facility inspection  
☐ Benchmark monitoring  
☐ Notification by EPA or State or local authorities  
☐ Other (describe): \_\_\_\_\_

7. Description of corrective action(s) taken or to be taken to eliminate or further investigate the problem (e.g., describe modifications or repairs to control measures, analyses to be conducted, etc.) or if no modifications are needed, basis for that determination:

8. Did/will this corrective action require modification of your SWPPP? ☐ YES ☐ NO

9. Date corrective action initiated: 



 / 



 /

10. Date correction action completed: 



 / 



 / 



 or expected to be completed: 



 / 



 /

11. If corrective action not yet completed, provide the status of corrective action at the time of the comprehensive site inspection and describe any remaining steps (including timeframes associated with each step) necessary to complete corrective action:



NPDES Permit Tracking No.:  
| | | | | | | | | | | | | | | |

**E. ANNUAL REPORT CERTIFICATION**

**1. Compliance Certification**

Do you certify that your annual inspection has met the requirements of Part 4.2 of the permit, and that, based upon the results of this inspection, to the best of your knowledge, you are in compliance with the permit? ☐ YES ☐ NO

If NO, summarize why you are not in compliance with the permit:

**2. Annual Report Certification**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Authorized Representative  
Printed Name:

| | | | | | | | | | | | | | | | | | | | | |

Title:

| | | | | | | | | | | | | | | | | | | | | |

Signature: \_\_\_\_\_

Date Signed: \_\_\_\_\_

**Appendix B  
Standard Permit Conditions**

## Appendix B. Standard Permit Conditions.

Standard permit conditions in Appendix B are consistent with the general permit provisions required under 40 CFR 122.41.

### B.1 Duty To Comply.

You must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

- A. You must comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards, even if the permit has not yet been modified to incorporate the requirement.
- B. Penalties for Violations of Permit Conditions: The Director will adjust the civil and administrative penalties listed below in accordance with the Civil Monetary Penalty Inflation Adjustment Rule (61 FR 252, December 31, 1996, pp. 69359-69366, as corrected in 62 FR 54, March 20, 1997, pp.13514-13517) as mandated by the Debt Collection Improvement Act of 1996 for inflation on a periodic basis. This rule allows EPA's penalties to keep pace with inflation. The Agency is required to review its penalties at least once every 4 years thereafter and to adjust them as necessary for inflation according to a specified formula. The civil and administrative penalties following were adjusted for inflation starting in 1996.

#### 1. Criminal Penalties.

- 1.1 **Negligent Violations.** The CWA provides that any person who negligently violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to criminal penalties of not less than \$2,500 nor more than \$25,000 per day of violation, or imprisonment of not more than one year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation or by imprisonment of not more than two years, or both.
- 1.2 **Knowing Violations.** The CWA provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than \$5,000 nor more than \$50,000 per day of violation, or by imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than 6 years, or both.

- 1.3. *Knowing Endangerment.* The CWA provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act and who knows at that time that he or she is placing another person in imminent danger of death or serious bodily injury shall upon conviction be subject to a fine of not more than \$250,000 or by imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the Act, shall, upon conviction of violating the imminent danger provision be subject to a fine of not more than \$1,000,000 and can fined up to \$2,000,000 for second or subsequent convictions.
- 1.4. *False Statement.* The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both. The Act further provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.
2. *Civil Penalties.* The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a civil penalty not to exceed the maximum amounts authorized by Section 309(d) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) (currently \$32,500 per day for each violation).
3. *Administrative Penalties.* The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to an administrative penalty, as follows
  - 3.1. *Class I Penalty.* Not to exceed the maximum amounts authorized by Section 309(g)(2)(A) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) (currently \$11,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$32,500).

- 3.2. *Class II Penalty.* Not to exceed the maximum amounts authorized by Section 309(g)(2)(B) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) (currently \$11,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$157,500).

**B.2 Duty to Reapply.**

If you wish to continue an activity regulated by this permit after the expiration date of this permit, you must apply for and obtain authorization as required by the new permit once EPA issues it.

**B.3 Need to Halt or Reduce Activity Not a Defense.**

It shall not be a defense for you in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

**B.4 Duty to Mitigate.**

You must take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

**B.5 Proper Operation and Maintenance.**

You must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by you to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by you only when the operation is necessary to achieve compliance with the conditions of this permit.

**B.6 Permit Actions.**

This permit may be modified, revoked and reissued, or terminated for cause. Your filing of a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

**B.7 Property Rights.**

This permit does not convey any property rights of any sort, or any exclusive privileges.

**B.8 Duty to Provide Information.**

You must furnish to EPA or an authorized representative (including an authorized contractor acting as a representative of EPA), within a reasonable time, any information which EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. You must also furnish to EPA or an authorized representative upon request, copies of records required to be kept by this permit.

**B.9 Inspection and Entry.**

You must allow EPA or an authorized representative (including an authorized contractor acting as a representative of EPA), upon presentation of credentials and other documents as may be required by law, to:

- A. Enter upon your premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- B. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- C. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- D. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

**B.10 Monitoring and Records.**

- A. Samples and measurements taken for the purpose of monitoring must be representative of the volume and nature of the monitored activity.
- B. You must retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date the permit expires or the date the permittee's authorization is terminated. This period may be extended by request of EPA at any time.
- C. Records of monitoring information must include:
  - 1. The date, exact place, and time of sampling or measurements;
  - 2. The individual(s) who performed the sampling or measurements;



3. The date(s) analyses were performed
  4. The individual(s) who performed the analyses;
  5. The analytical techniques or methods used; and
  6. The results of such analyses.
- D. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in the permit.
- E. The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

**B.11 Signatory Requirements.**

- A. All applications, including NOIs, must be signed as follows:
1. For a corporation: By a responsible corporate officer. For the purpose of this subsection, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
  2. For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or
  3. For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this subsection, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for

the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA).

- B. Your SWPPP, including changes to your SWPPP to document any corrective actions taken as required by Part 3.1, and all reports submitted to EPA, must be signed by a person described in Appendix B, Subsection 11.A above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
1. The authorization is made in writing by a person described in Appendix B, Subsection 11.A;
  2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and
  3. The signed and dated written authorization is included in the SWPPP. A copy must be submitted to EPA, if requested.
- C. All other changes to your SWPPP, and other compliance documentation required under Part 5.4, must be signed and dated by the person preparing the change or documentation.
- D. Changes to Authorization. If an authorization under Appendix B, Subsection 11.B is no longer accurate because the industrial facility has been purchased by a different entity, a new NOI satisfying the requirements of Subsection 11.B must be submitted to EPA. See Table 1-2 in Part 1.3.1 of the permit. However, if the only change that is occurring is a change in contact information or a change in the facility's address, the operator need only make a modification to the existing NOI submitted for authorization.
- E. Any person signing documents in accordance with Appendix B, Subsections 11.A or 11.B above must include the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

- F. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

#### **B.12 Reporting Requirements.**

- A. **Planned changes.** You must give notice to EPA as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
  2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1).
- B. **Anticipated noncompliance.** You must give advance notice to EPA of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- C. **Transfers.** This permit is not transferable to any person except after notice to EPA. Where a facility wants to change the name of the permittee, the original permittee (the first owner or operators) must submit a Notice of Termination pursuant to Part 1.4. The new owner or operator must submit a Notice of Intent in accordance with Part 1.3.1 and Table 1-2. See also requirements in Appendix B, Subsections 11.B and 11.D.
- D. **Monitoring reports.** Monitoring results must be reported at the intervals specified elsewhere in this permit.
1. Pursuant to Part 7.1, all monitoring data collected pursuant to Part 6.2 and 6.3 must be submitted to EPA using EPA's online eNOI system ([www.epa.gov/npdes/eNOI](http://www.epa.gov/npdes/eNOI)). Alternatively, if you cannot access eNOI, monitoring results should be reported on the MSGP Discharge Monitoring Report (MDMR) form, available at [www.epa.gov/npdes/stormwater/msgp](http://www.epa.gov/npdes/stormwater/msgp), and submitted to EPA.
  2. If you monitor any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 or as specified in the permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the MDMR.
  3. Calculations for all limitations which require averaging of measurements must use an arithmetic mean. For averaging purposes, use a value of zero for any

individual sample parameter, which is determined to be less than the method detection limit. For sample values that fall between the method detection level and the quantitation limit (i.e., a confirmed detection but below the level that can be reliably quantified), use a value halfway between zero and the quantitation limit.

- E. Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date.
- F. Twenty-four hour reporting.
  - 1. You must report any noncompliance which may endanger health or the environment. Any information must be provided orally within 24 hours from the time you become aware of the circumstances. A written submission must also be provided within five days of the time you become aware of the circumstances. The written submission must contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
  - 2. The following shall be included as information which must be reported within 24 hours under this paragraph.
    - a. Any unanticipated bypass which exceeds any effluent limitation in the permit. (See 40 CFR 122.41(m)(3)(ii))
    - b. Any upset which exceeds any effluent limitation in the permit
    - c. Violation of a maximum daily discharge limit for any numeric effluent limitation. (See 40 CFR 122.44(g).)
  - 3. EPA may waive the written report on a case-by-case basis for reports under Appendix B, Subsection 12.F.2 if the oral report has been received within 24 hours.
- G. Other noncompliance. You must report all instances of noncompliance not reported under Appendix B, Subsections 12.D, 12.E, and 12.F, at the time monitoring reports are submitted. The reports must contain the information listed in Appendix B, Subsection 12.F.
- H. Other information. Where you become aware that you failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Permitting Authority, you must promptly submit such facts or information.

**B.13 Bypass.**

**A. Definitions.**

1. Bypass means the intentional diversion of waste streams from any portion of a treatment facility See 40 CFR 122.41(m)(1)(i).
2. Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. See 40 CFR 122.41(m)(1)(ii).

**B. Bypass not exceeding limitations. You may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Appendix B, Subsections 13.C and 13.D. See 40 CFR 122.41(m)(2).**

**C. Notice.**

1. Anticipated bypass. If you know in advance of the need for a bypass, you must submit prior notice, if possible at least ten days before the date of the bypass. See 40 CFR 122.41(m)(3)(i).
2. Unanticipated bypass. You must submit notice of an unanticipated bypass as required in Appendix B, Subsection 12.F (24-hour notice). See 40 CFR 122.41(m)(3)(ii).

**D. Prohibition of bypass. See 40 CFR 122.41(m)(4).**

1. Bypass is prohibited, and EPA may take enforcement action against you for bypass, unless:
  - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
  - b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

- c. You submitted notices as required under Appendix B, Subsection 13.C.
- 2. EPA may approve an anticipated bypass, after considering its adverse effects, if EPA determines that it will meet the three conditions listed above in Appendix B, Subsection 13.D.1.

**B.14 Upset.**

- A. Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond your reasonable control. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. See 40 CFR 122.41(n)(1).
- B. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Appendix B, Subsection 14.C are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. See 40 CFR 122.41(n)(2).
- C. Conditions necessary for a demonstration of upset. See 40 CFR 122.41(n)(3). A permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
  - 1. An upset occurred and that you can identify the cause(s) of the upset;
  - 2. The permitted facility was at the time being properly operated; and
  - 3. You submitted notice of the upset as required in Appendix B, Subsection 12.F.2.b (24 hour notice).
  - 4. You complied with any remedial measures required under Appendix B, Subsection 4.
- D. Burden of proof. In any enforcement proceeding, you, as the one seeking to establish the occurrence of an upset, have the burden of proof. See 40 CFR 122.41(n)(4).



# Standard Methods for the Examination of Water and Wastewater

## 2540 SOLIDS#(1)\*

### 2540 A. Introduction

Solids refer to matter suspended or dissolved in water or wastewater. Solids may affect water or effluent quality adversely in a number of ways. Waters with high dissolved solids generally are of inferior palatability and may induce an unfavorable physiological reaction in the transient consumer. For these reasons, a limit of 500 mg dissolved solids/L is desirable for drinking waters. Highly mineralized waters also are unsuitable for many industrial applications. Waters high in suspended solids may be esthetically unsatisfactory for such purposes as bathing. Solids analyses are important in the control of biological and physical wastewater treatment processes and for assessing compliance with regulatory agency wastewater effluent limitations.

#### 1. Definitions

“Total solids” is the term applied to the material residue left in the vessel after evaporation of a sample and its subsequent drying in an oven at a defined temperature. Total solids includes “total suspended solids,” the portion of total solids retained by a filter, and “total dissolved solids,” the portion that passes through the filter.

The type of filter holder, the pore size, porosity, area, and thickness of the filter and the physical nature, particle size, and amount of material deposited on the filter are the principal factors affecting separation of suspended from dissolved solids. “Dissolved solids” is the portion of solids that passes through a filter of 2.0  $\mu\text{m}$  (or smaller) nominal pore size under specified conditions. “Suspended solids” is the portion retained on the filter.

“Fixed solids” is the term applied to the residue of total, suspended, or dissolved solids after heating to dryness for a specified time at a specified temperature. The weight loss on ignition is called “volatile solids.” Determinations of fixed and volatile solids do not distinguish precisely between inorganic and organic matter because the loss on ignition is not confined to organic matter. It includes losses due to decomposition or volatilization of some mineral salts. Better characterization of organic matter can be made by such tests as total organic carbon (Section 5310), BOD (Section 5210), and COD (Section 5220).

“Settleable solids” is the term applied to the material settling out of suspension within a defined period. It may include floating material, depending on the technique (Section 2540F.3b).

#### 2. Sources of Error and Variability

Sampling, subsampling, and pipeting two-phase or three-phase samples may introduce serious errors. Make and keep such samples homogeneous during transfer. Use special handling to insure sample integrity when subsampling. Mix small samples with a magnetic stirrer. If suspended solids are present, pipet with wide-bore pipets. If part of a sample adheres to the

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sample container, consider this in evaluating and reporting results. Some samples dry with the formation of a crust that prevents water evaporation; special handling is required to deal with this. Avoid using a magnetic stirrer with samples containing magnetic particles.

The temperature at which the residue is dried has an important bearing on results, because weight losses due to volatilization of organic matter, mechanically occluded water, water of crystallization, and gases from heat-induced chemical decomposition, as well as weight gains due to oxidation, depend on temperature and time of heating. Each sample requires close attention to desiccation after drying. Minimize opening desiccator because moist air enters. Some samples may be stronger desiccants than those used in the desiccator and may take on water.

Residues dried at 103 to 105°C may retain not only water of crystallization but also some mechanically occluded water. Loss of CO<sub>2</sub> will result in conversion of bicarbonate to carbonate. Loss of organic matter by volatilization usually will be very slight. Because removal of occluded water is marginal at this temperature, attainment of constant weight may be very slow.

Residues dried at 180 ± 2°C will lose almost all mechanically occluded water. Some water of crystallization may remain, especially if sulfates are present. Organic matter may be lost by volatilization, but not completely destroyed. Loss of CO<sub>2</sub> results from conversion of bicarbonates to carbonates and carbonates may be decomposed partially to oxides or basic salts. Some chloride and nitrate salts may be lost. In general, evaporating and drying water samples at 180°C yields values for dissolved solids closer to those obtained through summation of individually determined mineral species than the dissolved solids values secured through drying at the lower temperature.

To rinse filters and filtered solids and to clean labware use Type III water. Special samples may require a higher quality water; see Section 1080.

Results for residues high in oil or grease may be questionable because of the difficulty of drying to constant weight in a reasonable time.

To aid in quality assurance, analyze samples in duplicate. Dry samples to constant weight if possible. This entails multiple drying-cooling-weighing cycles for each determination.

Analyses performed for some special purposes may demand deviation from the stated procedures to include an unusual constituent with the measured solids. Whenever such variations of technique are introduced, record and present them with the results.

### **3. Sample Handling and Preservation**

Use resistant-glass or plastic bottles, provided that the material in suspension does not adhere to container walls. Begin analysis as soon as possible because of the impracticality of preserving the sample. Refrigerate sample at 4°C up to the time of analysis to minimize microbiological decomposition of solids. Preferably do not hold samples more than 24 h. In no case hold sample more than 7 d. Bring samples to room temperature before analysis.

### **4. Selection of Method**

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Methods B through F are suitable for the determination of solids in potable, surface, and saline waters, as well as domestic and industrial wastewaters in the range up to 20 000 mg/L.

Method G is suitable for the determination of solids in sediments, as well as solid and semisolid materials produced during water and wastewater treatment.

### 5. Bibliography

THERIAULT, E.J. & H.H. WAGENHALS. 1923. Studies of representative sewage plants. *Pub. Health Bull.* No. 132.

U.S. ENVIRONMENTAL PROTECTION AGENCY. 1979. Methods for Chemical Analysis of Water and Wastes. Publ. 600/4-79-020, rev. Mar. 1983. Environmental Monitoring and Support Lab., U.S. Environmental Protection Agency, Cincinnati, Ohio.

### 2540 D. Total Suspended Solids Dried at 103–105°C

#### 1. General Discussion

*a. Principle:* A well-mixed sample is filtered through a weighed standard glass-fiber filter and the residue retained on the filter is dried to a constant weight at 103 to 105°C. The increase in weight of the filter represents the total suspended solids. If the suspended material clogs the filter and prolongs filtration, it may be necessary to increase the diameter of the filter or decrease the sample volume. To obtain an estimate of total suspended solids, calculate the difference between total dissolved solids and total solids.

*b. Interferences:* See Section 2540A.2 and Section 2540B.1. Exclude large floating particles or submerged agglomerates of nonhomogeneous materials from the sample if it is determined that their inclusion is not representative. Because excessive residue on the filter may form a water-entrapping crust, limit the sample size to that yielding no more than 200 mg residue. For samples high in dissolved solids thoroughly wash the filter to ensure removal of dissolved material. Prolonged filtration times resulting from filter clogging may produce high results owing to increased colloidal materials captured on the clogged filter.

#### 2. Apparatus

Apparatus listed in Section 2540B.2 and Section 2540C.2 is required, except for evaporating dishes, steam bath, and 180°C drying oven. In addition:

*Aluminum weighing dishes.*

#### 3. Procedure

*a. Preparation of glass-fiber filter disk:* If pre-prepared glass fiber filter disks are used, eliminate this step. Insert disk with wrinkled side up in filtration apparatus. Apply vacuum and wash disk with three successive 20-mL portions of reagent-grade water. Continue suction to remove all traces of water, turn vacuum off, and discard washings. Remove filter from filtration

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apparatus and transfer to an inert aluminum weighing dish. If a Gooch crucible is used, remove crucible and filter combination. Dry in an oven at 103 to 105°C for 1 h. If volatile solids are to be measured, ignite at 550°C for 15 min in a muffle furnace. Cool in desiccator to balance temperature and weigh. Repeat cycle of drying or igniting, cooling, desiccating, and weighing until a constant weight is obtained or until weight change is less than 4% of the previous weighing or 0.5 mg, whichever is less. Store in desiccator until needed.

*b. Selection of filter and sample sizes:* Choose sample volume to yield between 2.5 and 200 mg dried residue. If volume filtered fails to meet minimum yield, increase sample volume up to 1 L. If complete filtration takes more than 10 min, increase filter diameter or decrease sample volume.

*c. Sample analysis:* Assemble filtering apparatus and filter and begin suction. Wet filter with a small volume of reagent-grade water to seat it. Stir sample with a magnetic stirrer at a speed to shear larger particles, if practical, to obtain a more uniform (preferably homogeneous) particle size. Centrifugal force may separate particles by size and density, resulting in poor precision when point of sample withdrawal is varied. While stirring, pipet a measured volume onto the seated glass-fiber filter. For homogeneous samples, pipet from the approximate midpoint of container but not in vortex. Choose a point both middepth and midway between wall and vortex. Wash filter with three successive 10-mL volumes of reagent-grade water, allowing complete drainage between washings, and continue suction for about 3 min after filtration is complete. Samples with high dissolved solids may require additional washings. Carefully remove filter from filtration apparatus and transfer to an aluminum weighing dish as a support. Alternatively, remove the crucible and filter combination from the crucible adapter if a Gooch crucible is used. Dry for at least 1 h at 103 to 105°C in an oven, cool in a desiccator to balance temperature, and weigh. Repeat the cycle of drying, cooling, desiccating, and weighing until a constant weight is obtained or until the weight change is less than 4% of the previous weight or 0.5 mg, whichever is less. Analyze at least 10% of all samples in duplicate. Duplicate determinations should agree within 5% of their average weight. If volatile solids are to be determined, treat the residue according to 2540E.

### 4. Calculation

$$\text{mg total suspended solids/L} = \frac{(A - B) \times 1000}{\text{sample volume, mL}}$$

where:

*A* = weight of filter + dried residue, mg, and

*B* = weight of filter, mg.

### 5. Precision

The standard deviation was 5.2 mg/L (coefficient of variation 33%) at 15 mg/L, 24 mg/L

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(10%) at 242 mg/L, and 13 mg/L (0.76%) at 1707 mg/L in studies by two analysts of four sets of 10 determinations each.

Single-laboratory duplicate analyses of 50 samples of water and wastewater were made with a standard deviation of differences of 2.8 mg/L.

### 6. Bibliography

- DEGEN, J. & F.E. NUSSBERGER. 1956. Notes on the determination of suspended solids. *Sewage Ind. Wastes* 28:237.
- CHANIN, G., E.H. CHOW, R.B. ALEXANDER & J. POWERS. 1958. Use of glass fiber filter medium in the suspended solids determination. *Sewage Ind. Wastes* 30:1062.
- NUSBAUM, I. 1958. New method for determination of suspended solids. *Sewage Ind. Wastes* 30:1066.
- SMITH, A.L. & A.E. GREENBERG. 1963. Evaluation of methods for determining suspended solids in wastewater. *J. Water Pollut. Control Fed.* 35:940.
- WYCKOFF, B.M. 1964. Rapid solids determination using glass fiber filters. *Water Sewage Works* 111:277.
- NATIONAL COUNCIL OF THE PAPER INDUSTRY FOR AIR AND STREAM IMPROVEMENT. 1975. A Preliminary Review of Analytical Methods for the Determination of Suspended Solids in Paper Industry Effluents for Compliance with EPA-NPDES Permit Terms. Spec. Rep. No. 75-01. National Council of the Paper Industry for Air & Stream Improvement, New York, N.Y.
- NATIONAL COUNCIL OF THE PAPER INDUSTRY FOR AIR AND STREAM IMPROVEMENT. 1977. A Study of the Effect of Alternate Procedures on Effluent Suspended Solids Measurement. Stream Improvement Tech. Bull. No. 291, National Council of the Paper Industry for Air & Stream Improvement, New York, N.Y.
- TREES, C.C. 1978. Analytical analysis of the effect of dissolved solids on suspended solids determination. *J. Water Pollut. Control Fed.* 50:2370.



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## **Endnotes**

### **1 (Popup - Footnote)**

**\* APPROVED BY STANDARD METHODS COMMITTEE, 1997.**

8/15/11 cont.

May need to work on lower area where exposed expanded material is visible in drainage by road.

Sediment Basin below Dam B needs Salt cedars removed and drainage from road contours & riprapped.

9/4/12 Year has been very dry with outfall run off occurs. Just this past August Sediment basin 80% full of water & appears to be  $\approx 40\%$  full of sediments. Outfall 1 appears stable with no additional erosion. Outfall 2 shows runoff flow but no sediment or erosion. Sediment B basins have very little water and no evidence of sediments. Flow channel into B upper basin silted in.

9/11/12

Outfall area 5 sediment  
basin. No water or obvious  
flow. R2A

9/10/12

Outfall area 4 No visible  
sign of new erosion. Sediment  
basin needs to be cleaned  
out good

Outfall area 6 appears stable  
with no new erosion  
visible

10/28/13

Observed that sediment basin  
by dam E was cleaned out on  
10/18/13. Sediment basin NE side  
of Dam C cleaned out on 10/21/13.

No erosion damage evident in  
remaining outfall areas

7/18/14

No visible runoff from rain earlier in week. All outfall areas appear stable, slight rilling on dam E. All others remain stable & continue to add growth.

AW

8/1/14

No visible runoff from recent rain from outfall 151, 2013 Veng. Little runoff into Sediment Basin A & no visible runoff into Basin B.

AW